

**ENGINEERING AND RELATED SERVICES
JANUARY 21, 2010**

**STATE PROJECT NO. H.005418
F.A.P. NO. STP-9910(552)
LOAD RATING OF BRIDGE CULVERTS
STATEWIDE**

Under Authority granted by Title 48 of Louisiana Revised Statutes, the Louisiana Department of Transportation and Development (DOTD) hereby issues a Request for Qualification Statements (RFQ) on Standard Form 24-102 (SF 24-102), "Professional Engineering and Related Services", revised January 2003, from Consulting Firms (Consultant) to provide engineering and related services. **All requirements of Louisiana Professional Engineering and Land Surveying (LAPELS) Board must be met at the time of contract execution.** One Prime-Consultant/Sub-Consultant(s) will be selected for this Contract.

Project Manager – Ms. Holly Thomas

All inquiries concerning this advertisement should be sent in writing to Debbie. Guest@LA.gov.

PROJECT DESCRIPTION

The selected Consultant shall provide all necessary engineering services required for performing the structural load rating for culvert structures statewide using the Load and Resistance Factor Rating (LRFR) method. There are approximately two-hundred and seventy (270) culvert structures that need a rating.

SCOPE OF SERVICES

The services to be rendered for this Project shall consist of the following:

The selected consultant will perform a complete load rating for the inventory of culvert structures statewide. The work will be separated into three (3) phases as described below:

Phase I: Rate thirty culvert structures (30)

Phase II: Rate the culvert structures as deemed critical after first phase (maximum 80)

Phase III: Rate the additional culvert structures as deemed necessary (maximum 160)

Presently we have 2,479 structures that classify as culverts. This is made up of concrete box culverts, concrete pipe culverts, concrete arch culverts, and metal arch culverts. The behavior of each of these different classifications results in the need to analyze them separately to understand the total need to rate the entire inventory. There are a substantial

number (546) of metal arches which could each require an element level inspection. This initial study should reveal how critical it is to rate each of the 2,479 structures.

FHWA has required that all culvert structures be rated. In order to understand our inventory, we will need to perform a phased approach to the rating of these culvert structures. We have grouped the culvert structures into those in critical conditions and those that will help us to understand our inventory. During the FHWA review of LADOTD Bridge Rating, it was suggested that a baseline study should educate us on the condition of our structures and the need to do further evaluations. While some states have assigned values to their culverts with no evaluations, Louisiana does not feel comfortable without a basic understanding of our culverts performances. We need to rate a selected group of individual structures to be able to assign ratings to the remainder of the inventory or to decide if the remainder need to be individually rated.

The selected consultant will perform a complete load rating for the inventory of culvert structures statewide. The work will be separated into three (3) phases as described below:

Phase I: Rate thirty culvert structures (30). The specific culvert structures are as follows:

STRUCTURE #	ROUTE	CROSSING	BRIDGE NAME	TYPE
05560700506171	LA 2	CREEK		CONBOX
05330200706771	US 65	TALLA BENA BAYOU		CONBOX
03200121007251	US 190	US 190 DRAINAGE CANAL	US 190 DRAINAGE CANAL	CONBOX
05560700505581	LA 2	HORSE.PEN CREEK		CONBOX
08641250105971	LA 124	POPE CREEK		CONBOX
08404550553571	I-49	CHERRY CREEK	I-49 OVER CHERRY CREEK	CONBOX
05334510817411	I-20	DRAINAGE CANAL		CONBOX
02360060300001	US 90	DRAIN CANAL		CONBOX
58130410202011	LA 124	CALLIHAN CREEK	CALLIHAN CREEK BRIDGE	CONBOX
58301490409591	LA 127	MASON'S BRANCH	MASON'S BRANCH	CONBOX
61174501011791	I-10	DRAIN		CONBOX
05374510612541	I-20	STEEP BAYOU		CONBOX
04084510206091	I-20	ALLIGATOR BAYOU		CONBOX
04094550802281	I-49	DRAIN	I-49 OVER DRAIN	CONBOX
05623340200121	LA 585	DRAIN	DRAIN	CONPIP
05428421503051	LA 856	DRAIN	DRAIN	CONPIP
08400080809211	US 71	BAYOU BEOUF	BEOUF BAYOU	CONPIP
58110150712561	US 165	BALLARD BAYOU RELIEF	BALLARD BAYOU RELIEF	CONPIP
07060280311811	US 190	PALMETTO CREEK		METRCH
08354550630374	I-49	DRAINAGE CHANNEL	DRAINAGE CHANNEL @ 8 MIL	METRCH
04070880403321	LA 154	BRANCH		METRCH
02260051005351	US 90	DRAIN CANAL	US 90 AT DRAIN CANAL	METRCH
02454280300201	LA 3127	DRAIN CANAL	LA 3127 AT DRAIN CANAL	METRCH
P3132317923751	9351	KANSAS CITY SOUTHERN	KANSAS CITY SOUTHERN R/R	METRCH
02458450301001	LA 52	BOUTTE CANAL	LA 52 @ BOUTTE CANAL	METRCH

08580660313421	LA 10	TEN MILE CREEK TRIB.	TEN MILE CREEK TRIB.	METRCH
04098091002871	LA 3194	MCCAIN CREEK	LA 3194	METRCH
02550650401559	LA 24	BAYOU TERREBONNE	BRAVES BRIDGE	METRCH
04094510115401	I-20	HUDSON ST		CONRCH
07020140303961	US 165B	RR OVERPASS IN KINDER	RR OVERPASS IN KINDER	CONRCH

Phase II: Rate the culvert structures as deemed critical after first phase (maximum 80)

Phase III: Rate the additional culvert structures as needed (maximum 160)

Tasks

Task 1: Plan and Document Review

- Search and review original as-built plans and shop drawings.
- Search and review original design calculations and compare design with as-built configurations.
- Establish a history of repairs, rehabilitations, or structural modifications for the structure.
- Review culvert structure repair / rehabilitation plans.
- Search and review previous culvert structure inspection reports, load rating reports, structural models, and other testing reports as available.

Task 2: Inspection Process

- Detailed field investigation as required when sufficient information is not available.
- Detailed field investigations are required for flexible structures to include a shape evaluation.

Task 3: Analysis & Load Rating

Perform a system structural model and analysis of the culvert structure to determine dead load and live load forces in the members. Three-dimensional structural model may be needed for complex structures.

- The dead load analysis to consider present condition of the structure.
- Live load analysis should include design loads, legal loads, and routine overload permits.
 - Design Live loads: HL-93
 - LADOTD State Legal Loads
 - LADOTD Routine permit vehicles
- Secondary and temperature effects may need to be considered.
- Field testing and monitoring might be necessary.

Rating is to be based on the present condition, capacity and loading of the structure.

Rate the structure systems use the load rating provisions in the 2008 AASHTO *Manual for Bridge Evaluation*.

Task 4: Report and Recommendations

A preliminary report at 60% submittal, 90% submittal and a final report are required. An initial meeting will take place presenting the understood scope, the schedule, inspections and rating plans. The meeting must take place within 45 days of the contract. Afterwards, meetings shall be scheduled to present the progress of the project.

Reporting of results shall show the rating factors. Provide a summary sheet and a complete QA/QC check for each rating.

FINAL SUBMITTALS

The Final Rating Report package shall consist of the following:

- a) One electronic copy and one hard copy of the rating report. Report shall include documentation of final condition of all deteriorated or rehabilitated members as well as pictures and any assumptions influencing the rating.
- b) One electronic copy of the final plans and existing plans.
- c) One electronic copy of each of the models developed using the latest version of the following software: Virtis, Staad, Lusas, or Lars.
- d) Update ProjectWise and index.

SUBMITTAL SCHEDULE

During the progress of the work, intermediate submissions will be made to the DOTD for review and comments at the 60% and 90% levels of completion. Comments received as a result of the submissions will be discussed with the DOTD and incorporated into the Final report as warranted.

Phase I: Rate thirty culvert structures (30)

30% Submittal	45 days after NTP
60% Submittal	65 days after NTP
90% Submittal	85 days after NTP
98% Submittal	100 days after NTP
100% Submittal	120 days after NTP

Phase II: Rate the culverts as deemed critical after first phase (maximum 80)

30% Submittal	150 days after NTP
60% Submittal	250 days after NTP
90% Submittal	325 days after NTP
98% Submittal	345 days after NTP
100% Submittal	365 days after NTP

Phase III: Rate the additional culverts as deemed necessary (maximum 160)

30% Submittal	395 days after NTP
60% Submittal	445 days after NTP
90% Submittal	625 days after NTP

98% Submittal
100% Submittal

670 days after NTP
730 days after NTP

ELECTRONIC DELIVERABLES

The Consultant hereby agrees to produce electronic deliverables in conformance with “DOTD Software and Deliverable Standards for Electronic Plans” as outlined at http://www.dotd.louisiana.gov/highways/project_devel/design/electronic_standards_disclaimer.asp. The Consultant shall download and apply the latest CAD standards. The Consultant hereby agrees to install incremental updates to software and CAD standards as instructed by the Project Manager. Such updates will not have a significant impact on the development time or delivery date for project plans, or require the Consultant to purchase additional software. Prior to proceeding with plan development, the Consultant shall contact the Project Manager for any special instructions regarding updates to standards or project-specific requirements if this information has not already been provided.

In the event that any electronic standard conflicts with written documentation, including DOTD plan-development manuals, the electronic standard typically governs. The Consultant is responsible for contacting the Project Manager should questions arise.

Plan deliveries shall be made on CD or DVD media and labeled with media-compatible indelible ink on separate lines as follows:

State Project Number
“Final Plans Submittal”, “60% ACP Submittal” (or other milestone)
“Electronic Deliverables”
Consultant Firm Name

The CD/DVD shall be delivered with a signed cover letter that includes, among the formalities, a deliverable “hash” code that is documented in a report generated by the ControlCAD Indexer Submittal tool. The hash code is used to verify that the CD is authentic. At any stage of the plan development process, the Project Manager may require plan delivery by other methods including, but not limited to, upload to the DOTD ProjectWise repository.

The prime Consultant is responsible for ensuring that Sub-Consultants are prepared to produce electronic deliverables in conformance with DOTD electronic standards for plans.

QUALITY CONTROL/QUALITY ASSURANCE

The DOTD requires the Consultant to develop a Quality Control/Quality Assurance program; in order to provide a mechanism by which all contracted services can be subject to a systematic and consistent review. Consultants must ensure quality and adhere to established design policies, procedures, standards, and guidelines in the preparation and review of all design products. The DOTD shall provide limited input and technical assistance to the Consultant.

SERVICES TO BE PERFORMED BY DOTD

The following items will be provided by DOTD when available, but it will be the responsibility of the selected consultant to search, collect and review these items at the applicable DOTD District or Headquarters Office. These documents must be scanned and digitally filed into LADOTD's ProjectWise with indexing.

1. As-Built Drawings
2. Bridge Inspection Reports
3. Shop Drawings of the Existing Structures
4. Bridge Rating Reports

CONTRACT TIME

The Consultant shall proceed with the services specified herein after the execution of this Contract and upon written Notice-To-Proceed from the DOTD. The overall contract time to complete this project is estimated to be **730 calendar days**. The delivery schedule for all project deliverables shall be established by the Project Manager.

COMPENSATION

Compensation for the required services rendered in connection with this Contract will be based on negotiated work-hours using DOTD established billable rates for the actual time spent on the project, with a maximum limitation of **\$500,000**.

All travel related expenses will be compensated under direct expenses, and will be in accordance with Louisiana Office of State Travel regulations found at: <http://www.doa.louisiana.gov/osp/travel/travelpolicy.htm> Vehicle rental rates will require prior approval from the DOTD Project Manager.

REFERENCES

All services and documents will meet the standard requirements as to format and content of the DOTD; and will be prepared in accordance with the latest applicable editions, supplements and revisions of the following:

1. AASHTO Manual for Bridge Evaluation
2. DOTD The Guidelines for Bridge Rating and Evaluation
3. AASHTO LRFD Bridge Design Specifications
4. FHWA-IF-09-014 Load Rating Guidance and Examples for Bolted and Riveted Gusset Plates in Truss Bridges, February 2009
5. AASHTO/ASTM Standards and/or DOTD Test Procedures
6. DOTD Standard Specifications for Roads and Bridges
7. DOTD Bridge Design Manual
8. Consultant Contract Services Manual
9. FHWA Bridge Inspector's Reference Manual

10. Manual for Maintenance Inspection for Bridges

MINIMUM PERSONNEL REQUIREMENTS

The following requirements must be met by the Prime-Consultant at the time of submittal:

1. At least one Principal of the Prime-Consultant shall be a Professional Engineer registered in the State of Louisiana.
2. At least one Principal or other Responsible Member of the Prime-Consultant must be a Professional Civil Engineer, registered in the State of Louisiana with a minimum of five years experience in the inspection and rating of rigid and flexible culverts, with a corresponding support staff with experience in performing inspection, rating and analysis.
3. In addition to the above requirements, the prime consultant must also employ on a full time basis, or through the use of a sub-consultant(s), a minimum of one NBIS certified bridge inspector who has successfully completed a Federal Highway Administration (FHWA) approved comprehensive bridge inspection training course and has a minimum of five years specialized experience in the inspection of rigid and flexible structures.

Certifications of Compliance must be submitted with and made part of the Consultants Standard Form 24-102 for all Personnel Requirements listed herein.

EVALUATION CRITERIA

The general criteria to be used by DOTD (when applicable) in evaluating responses for the selection of a Consultant to perform these services are:

1. Consultant's firm experience on similar projects, weighting factor of 3;
2. Consultant's personnel experience on similar projects, weighting factor of 4;
3. Consultant's firm size as related to the estimated project cost, weighting factor of 3;
4. Consultant's past performance on similar DOTD projects, weighting factor of 6; **
5. Consultant's current work load with DOTD, weighting factor of 5;
6. Location where the work will be performed, weighting factor of 4; *

* All respondents will receive a 4 in this category

** The Bridge Inspection (BI) performance rating will be used for this project.

Complexity Level (moderate)

Consultants will be evaluated as indicated in Items 1- 6. The evaluation will be by means of a point-based rating system. Each of the above criteria will receive a rating on a scale of 0-4. The rating will then be multiplied by the corresponding weighting factor. The firm's rating in each category will then be added to arrive at the Consultant's final rating.

If Sub-Consultants are used the Prime Consultant must perform a minimum of 51% of the work for the overall project. Each member of the Consultant/Team will be evaluated on their part of the contract, proportional to the amount of their work. The individual team member ratings will then be added to arrive at the Consultant/Team rating.

Communication Protocol

DOTD's Project Evaluation Team will be responsible for performing the above described evaluation, and will present a short-list of the three (if three are qualified) highest rated Consultants to the Secretary of the DOTD. The Secretary will make the final selection. **Below are the proposed Team members. DOTD may substitute for any reason provided the members meet the requirements of R.S. 48:291.**

1. Debbie L. Guest – Ex officio
2. Holly Thomas – Project Manager
3. Dana Feng
4. William Metcalf
5. Steven Sibley
6. Artur D'Andrea

Rules of Contact (Title 48 Engineering and Related Services)

These rules are designed to promote a fair, unbiased, legally defensible selection process. The LA DOTD is the single source of information regarding the Contract selection. The following rules of contact will apply during the Contract selection process and will commence on the date of advertisement and cease at the contract execution of the selected firm. Contact includes face-to-face, telephone, facsimile, Electronic-mail (E-mail), or formal written communications. Any contact determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of the submittal (SF 24-102):

- A. The Consultant shall correspond with the LA DOTD regarding this advertisement only through the LA DOTD Consultant Contracts Services Administrator;
- B. The Consultant, nor any other party on behalf of the Consultant, shall not contact any LA DOTD employees, including but not limited to, department heads; members of the evaluation teams; and any official who may participate in the decision to award the contract resulting from this advertisement except through the process identified above. Contact between Consultant organizations and LA DOTD employees is allowed during LA DOTD sponsored one-on-one meetings;
- C. Any communication determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of submittal, at the sole discretion of the LA DOTD;
- D. Any official information regarding the project will be disseminated from the LA DOTD'S designated representative on the LA DOTD website. Any official correspondence will be in writing;

- E. The LA DOTD will not be responsible for any verbal exchange or any other information or exchange that occurs outside the official process specified herein.

By submission of a response to this RFQ, the Consultant agrees to the communication protocol herein.

CONTRACT REQUIREMENTS

The selected Consultant will be required to execute the contract within 10 days after receipt of the contract.

INSURANCE - During the term of this contract, the Consultant will carry professional liability insurance in the amount of \$1,000,000. The Prime-Consultant may require the Sub-Consultant(s) to carry professional liability insurance. This insurance will be written on a “claims-made” basis. Prior to executing the contract, the Consultant will provide a Certificate of Insurance to DOTD showing evidence of such professional liability insurance.

AUDIT - The selected Consultant/Team will allow the DOTD Audit Section to perform an annual overhead audit of their books, or provide an *independent* Certified Public Accountant (CPA) audited overhead rate. This rate must be developed using Federal Acquisition Regulations (FAR) and guidelines provided by the DOTD Audit Section. In addition, the Consultant/Team will submit semi-annual labor rate information, when requested by DOTD.

The selected Consultant/Team will maintain an approved Project Cost System, and segregate direct from indirect cost in their General Ledger. Pre-award and post audits, as well as interim audits, may be required. For audit purposes, the selected Consultant/Team will maintain accounting records for a minimum of five years after final contract payment.

Any Consultant currently under contract with the DOTD and who has not met all the audit requirements documented in the manual and/or notices posted on the DOTD Consultant Contract Services Website (www.dotd.louisiana.gov), will not be considered for this project.

SUBMITTAL REQUIREMENTS

One original (**stamped “original”**) and **five** copies of the SF 24-102 must be submitted to DOTD. All submittals must be in accordance with the requirements of this advertisement and the Consultant Contract Services Manual. Any Consultant/Team failing to submit any of the information required on the SF 24-102, or providing inaccurate information on the SF 24-102, will be considered non-responsive.

Any Sub-Consultants to be used, including Disadvantaged Business Enterprises (DBE), in performance of this Contract, must also submit a SF 24-102, which is completely filled out and contains all information pertinent to the work to be performed.

The Sub-Consultant's SF 24-102 must be firmly bound to the Consultant's SF 24-102. In Section 9, the Consultant's SF 24-102 must describe the **work elements** to be performed by the Sub-Consultant(s), and state the approximate **percentage** of each work element to be subcontracted to each Sub-Consultant.

Name(s) of the Consultant/Team listed on the SF 24-102, must precisely match the name(s) filed with the Louisiana Secretary of State, Corporation Division, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

The SF 24-102 will be identified with **Contract No. H.005418**, and will be submitted **prior to 3:00 p.m. CST on Monday, February 7, 2010**, by hand delivery or mail, addressed to:

Department of Transportation and Development
Attn.: Ms. Debra L. Guest, P.E.
Contracts Administrator
1201 Capitol Access Road, **Room 405-T**
Baton Rouge, LA 70802-4438 or
Telephone: (225) 379-1889

REVISIONS TO THE RFQ

DOTD reserves the right to revise any part of the RFQ by issuing an addendum to the RFQ at any time. Issuance of this RFQ in no way constitutes a commitment by DOTD to award a contract. DOTD reserves the right to accept or reject, in whole or part, all Qualification Statements submitted, and/or cancel this announcement if it is determined to be in DOTD's best interest. All materials submitted in response to this announcement become the property of DOTD, and selection or rejection of a submittal does not affect this right. DOTD also reserves the right, at its sole discretion, to waive administrative informalities contained in the RFQ.